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THE UNIVERSITY OF ALBERTA

A VALIDITY STUDY OF AN ASSERTIVENESS SCALE

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "A Validity Study of an Assertiveness Scale" submitted by Norman E. Brodie, in partial fulfilment of the requirements for the degree of Master of Education.

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ABSTRACT

This study assessed the validity of an assertiveness inventory, the Green-Fox Scale, for use as a screening instrument and for measuring progress in assertive training with psychiatric patients. A total of 29 patients from the Edmonton General Hospital psychiatric day program participated in the study. 17 of these patients were judged by the hospital staff to be low in assertion, and they received a 5-week course in assertive training. The remaining 12 patients received only other forms of group therapy and represented a no-assertive training control group. The Green-Fox Scale was administered to all patients prior to their assignment to the treatment groups, and were also rated by this investigator on their apparent ability to be assertive in group therapy sessions. Both groups were retested with the Green-Fox Scale after a period of approximately 5 weeks, and at that time the assertive training group patients were rated on their apparent improvement in ability to respond assertively in group therapy.

The results indicated that patients selected for assertive training show, on the average, lower Green-Fox Scale scores than patients not so selected ($p < .0005$). The Green-Fox Scale scores were also correlated positively with ratings of assertiveness ($r = .63$, $p < .0005$). These findings indicate that the Scale accurately reflects actual level of assertiveness in this patient population and may therefore be useful as a screening instrument to aid in selecting patients for assertive training.

The results also demonstrated that patients show significant

increases in their Green-Fox Scale scores after completing a 5-week course in assertive training ($p < .0005$) and that these increases are correlated with ratings of observed behavior change in group therapy sessions ($r = .51$, $.05 > p > .01$). Patients not receiving assertive training did not show any significant changes in their Green-Fox Scale scores over a similar time period ($p > .05$). These findings indicate that the Scale accurately reflected changes in assertive behavior, and supports the use of this instrument for monitoring patients' progress in such treatment.

On the basis of the performance of the patients in this sample, a cutting score of 60 was suggested tentatively as indicative of an adequate level of assertiveness. If applied to this sample, the use of this cutting score would have successfully identified 88.24% of the patients selected for assertive training and 91.67% of those judged to be of adequate assertiveness. The study concludes with a discussion of some of the limitations of the approach applied and implications for further research are explored.

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CHAPTER I

INTRODUCTION

One of the most popular and successful contemporary counselling approaches is that of assertive training. The success and popularity of this technique is that it can help numerous individuals achieve significant and meaningful improvements in their ability to deal with problematic social situations and help them achieve closer, more meaningful interpersonal relationships. As a counselling approach, assertive training also represents an amalgamation of two major approaches in psychology, the behavioral and the humanistic. It is a training procedure which uses a wide variety of behavioral techniques (e.g., modeling, role rehersal, role reversal, shaping of successive approximations, etc.) to achieve a basically humanistic goal, the recognition of the individual person by himself and others as an important being who is "entitled to thoughts, emotions, and feelings which need not be sacrificed or negotiated away in a relationship with someone else" (Cotler, 1976, p. 167).

Assertive behavior, the goal of assertive training, is a form of social behavior involving the honest and reasonably direct expression of feelings. Lange and Jakubowski (1976) defined assertion in this manner:

> Assertion involves standing up for personal rights and expressing thoughts, feelings, and beliefs in direct, honest, and appropriate ways which do not violate another person's rights... The basic message in assertion is: This is what I think. This is what I feel. This is how I see the situation. This message expresses "who the person is" and is said without dominating, humiliating, or degrading the other person (p. 7).

Assertive training would therefore include a range of therapeutic procedures aimed at increasing the client's ability to engage in assertive behavior in a socially appropriate manner. It would likely focus on both the expression of negative feelings, such as anger and resentment, and the expression of positive feelings like affection and praise.

Assertive training is believed to benefit the client in two significant ways. First, it is held that assertive responding will reduce the individual's feelings of anxiety in social situations, leading to greater feelings of well-being (Wolpe, 1958, 1969). The second major benefit is that assertive behavior can increase the individual's ability to achieve social rewards and consequently obtain greater satisfaction from life (Rimm & Masters, 1974). These benefits of assertiveness are likely to have significant effect effects on the overall personality and emotional adjustment of the individual. Their influence can be noted in the description of an assertive individual offered by Fensterheim and Baer (1975):

> The truely assertive person possesses four characteristics: He feels free to reveal himself. Through words and actions he makes the statement, "This is me. This is what I feel, think, and want." He can communicate with people on all levels-- with strangers, friends, family. This communication is always open, direct, and appropriate. He has an active orientation to life. He goes after what he wants. In contrast to the passive person who waits for things to happen, he attempts to make things happen. He acts in a way he himself respects. Aware that he cannot always win, he accepts his limitations. However, he always strives to make the good try so that win, lose, or draw, he maintains his self-resect. (p. 8).

Assertive training, as a counselling approach, has seen rapid gains in popularity in recent years. Reports on the topics of assertion and assertive training have mushroomed spectacularly in

numbers, with listings under related headings in the Social Sciences Citation Index rising from only 5 in 1970 to a total of 47 in 1977. A similar growth has taken place outside of the professional and scientific journals, with the publication of a number of well documented trainer's manuals and scholastic texts (e.g., Alberti & Emmons, 1974; Lange & Jakubowski, 1976; Rimm & Masters, 1974). Assertive training has also become a popular topic among the general press and several books have been prepared for public consumption (e.g., Bach & Goldberg, 1974; Smith, 1975). Indeed, this approach may be well on its way to becoming one of the latest "psychological fads." However, if it is to escape the inevitable fate of fadism, i.e., eventual disenchantment and eventual replacement with some new fad, it is necessary to pursue scientific investigation of this counselling approach, to determine just what is the actual range of applicability and efficacy of the technique.

A necessary component of any scientific investigation is the construction and utilization of some reliable, objective basis of measurement of the phenomenon of interest. Only if we have some reasonably precise method of measuring the events we are concerned with, can we scientifically ascertain whether a particular treatment has had any effect. This problem of objective measurement has seriously hampered the scientific investigation of assertive training, as the vast majority of reported studies have utilized very subjective means of evaluating treatment effect, such as therapist's ratings of client improvement or the client's self-reports of improvement. The purpose of this study is therefore to further the process of scientific investigation of the values and limitations

of assertive training by means of evaluating the validity of an objective, psychometric instrument for assessing assertiveness, the Green-Fox Scale (see Appendices A and B). It is this author's belief that the use of an objective measure of assertiveness can greatly aid the process of scientific investigation, and thereby prevent assertive training from becoming a short-lived "fad" due to its being inappropriately applied.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

This chapter begins with a brief review of the historical development of assertive training as a form of behavior therapy. This is followed by an examination of some of the research literature pertaining to the effectiveness of assertive training for a variety of clinical problems, citing both individual and group studies. The need for more objective means of evaluating individuals' levels of assertiveness is discussed and a number of currently available assertiveness inventories are evaluated. The chapter concludes with a presentation of the specific objectives of this study.

Historical Perspective

Assertive training, as a form of behavior therapy, is a fairly recent innovation, although its theoretical precursors date back to the early work of Pavlov (1927). Salter (1949) emphasized Pavlov's concepts of excitation and inhibition in his approach to working with neurotic patients. His fundamental assumption was that all neurotics suffer from excessive inhibition or, as he colloquially described it, "constipation of the emotions". To counteract this inhibitory tendency, he advocated practicing more excitatory response styles. To this end he prescribed a number of exercises for the patient: "feeling talk" (i.e., saying what you feel); "facial talk" (i.e., the nonverbal expression of feelings); practicing "contradict and attack" statements when disagreeing with someone; the frequent usage of "I" statements; accepting praise and compliments without self-depreciation and praising oneself if the occasion

warrants it; and to live for the present, be spontaneous.

Despite Salter's precedence in the area, the major credit for the development of interest in assertive training is generally given to Wolpe (1958). The major deficits of Salter's prior position were his insistence on prescribing the same treatment for all of his patients, regardless of their presenting complaints, and also his apparent lack of distinction between appropriate assertion and socially inappropriate aggression (c.f., Lange & Jakubowski, 1976).

In contrast to Salter's primary dependence on the concepts of inhibition and excitation, Wolpe based his approach on the reciprocal inhibition principle, which stated:

> If a response antagonistic to anxiety can be made to occur in the presence of anxiety-evoking stimuli so that it is accompanied by a complete or partial suppression of anxiety, the bond between these stimuli and the anxiety responses will be weakened.
>
> (Wolpe, 1958, p. 71)

Assertive responses were one of eight classes of behavior which Wolpe listed as antagonistic to anxiety. As such, instead of prescribing training and/or encouragement in assertive responding for all his patients on a universal basis, he felt that assertive training was best advocated only for those patients showing maladaptive anxiety in interpersonal situations. Wolpe (1969) stated further that assertive training is not an appropriate treatment for cases involving noninterpersonal anxieties (such as fear of high places, animals, etc.) or for anxieties generated in some circumscribed social situations where the anxiety is evoked merely by the presence of a particular person. In such cases he prefers to utilize systematic desensitization (Wolpe, 1958, 1969).

Whereas Salter (1949) stressed a response inhibition theory for explaining inappropriate behaviors, and Wolpe (1958) utilized an anxiety and avoidance hypothesis for the occurence of unassertive responses, Lazarus (Wolpe & Lazarus, 1966; Lazarus, 1971) assumes that the appropriate assertive responses may not be in the individual's response repertoire at all. A major focus of assertive training is then seen as teaching the basic assertive social skills, in addition to dispelling any unwarranted anxieties or inhibitions the person may have toward behaving assertively. Thus, in addition to its ability to reduce anxiety, asseriveness has also been described as conducive to healthy interpersonal relations (Bach & Wyden, 1968; Lazarus, 1971). Lazarus also refers to this ability in terms of "emotional freedom" and states that it results in "decreased anxiety, close and meaningful relationships, self-respect and social adaptivity" (1971, p.116). Assertiveness has also been seen as an integral part of personal effectiveness (Liberman, King, DeRisi, & McCann, 1975; Lange & Jakubowski, 1976), which involves having people learn "active, practical ways of standing up for themselves and using their abilities for personal growth and the enhancement of personal relationships" (Lange & Jakubowski, 1976, p.2).

Therapeutic Effectiveness: Outcome Studies

Asserive training has been reported to be effective in increasing the degree of assertion in social situations by numerous authors. The vast majority of these reports have been case-study, anecdotal or clinical reports (eg., Cautela,1966; Guttelman, 1965; Hosford, 1969; Lazarus, 1965; Lazarus & Serber, 1968; Stevenson, 1959;

Stevenson & Wolpe, 1960; Wolpe, 1958, 1969; Wolpe & Lazarus, 1966). These reports have primarily focused on the use of assertion training on the problem of timidity. There have, however, been a number of reportedly successful applications of assertive training for a wide variety of other clinical problems, where a lack of assertiveness was felt to be contributory to the other presenting problems. For example, assertive training- often in combination with other forms of therapeutic intervention- has been reported as a useful behavior change procedure in the treatment of: Aggression (Frederiksen, Jenkins, Foy & Eisles, 1976; Wallace, Teige, Liberman & Baker, 1973), Abdominal spasms (Lazarus, 1965), Addictions (Salter, 1949), Agrophobia (Lazarus, 1966; Rimm, 1973), Asthma (Gardner, 1968; Wolpe & Lazarus, 1966), Compulsive disorders (Walton & Mather, 1963), Chronic crying spells (Rimm, 1967), Depression (Bean, 1970; Cameron, 1951; Katz, 1971; Lazarus & Serber, 1968; Piaget & Lazarus, 1969; Stevenson & Wolpe, 1960), Dermatological problems (Seitz, 1953), Gilles de la Tourette's syndrome (Tophoff, 1973), Hallucinations (Nydegger, 1972), Headaches (Dengrove, 1968), Homosexual pedophilia (Edwards,1972), Marital problems (Fensterheim, 1972), Phobias (Rimm, 1973; Lazarus, 1971; Cautela, 1966), Self mutilation (Seitz, 1953), and Urinary retention (Barnard, Flesher & Steinbook, 1966).

While these single-case studies are unable to demonstrate conclusively that assertive training is significantly more effective than other forms of treatment (spontaneous remission rates, placebo effects, and interactions with other forms of therapy are not controlled for) the listing does indicate that many clinicians have found that assertive training is a useful supplement or adjunct to other forms of therapy. Assertive training has become a popular

form of behavior therapy and is in widespread usage in a variety of clinical settings. This popularization of the procedure is a major factor in the demand for more carefully designed studies of its efficacy and for more objective means of determining the results of assertive training.

Consistent with this need, there has recently been an increase in the reports of controlled studies of assertion training, particularly group training reports. Lomont, Guilner, Spector, & Skinner, (1969) compared the effectiveness of group assertive training with that of insight therapy and found that on the MMPI and the Leary Interpersonal Checklist there were greater decreases in "pathology" for the assertive training group. Hedquist and Weingold (1970) found that a six-week course in assertive training produced considerable improvement in verbal assertive responses. Rathus (1972) in a controlled study using college women, found that those groups receiving assertive training gave self-reports of greater gains in assertive behavior than the two control groups, showed significantly greater assertive behavior in sample situations, reported significantly greater fear reduction on the Temple Fear Survey Inventory and tended to report greater reductions of fear of social criticism and fear of social competence. Other authors reporting on the effectiveness of group asserive training have found similar results (Alberti & Emmons, 1974; Bloomfield, 1973; Booraem & Flowers, 1972; Cotler, 1975; Fensterheim, 1972; Flowers & Guerra, 1974; Hedquist & Weingold, 1970; McFall & Lillesand, 1971; McFall & Marston, 1970; McFall & Twentyman, 1973; Rimm, Keyson & Hunziker, 1971; Sarason, 1968; and Shoemaker & Paulson, 1973).

From the literature reviewed, it appears evident that assertive

training, applied either individually or in groups, is effective in increasing individuals' ability to behave assertively. Another common finding is that these increases are not only apparent in the therapeutic setting, but instead show satisfactory generalization to real life situations (Lange & Jakubowski, 1976). A major criticism which can be applied to many of the reported studies, however, is their lack of objective criteria for improvement in assertive responding. The vast majority of the studies have used either clients' reports of self-improvement or therapists' assessments of client improvement. Both procedures are likely to result in systematic biasing in favor of finding improvements after treatment. The placebo effect from expecting change to occur in oneself as a result of participation in a treatment program places the reliability of self-reports in question, while the experimenter bias effect (Rosenthal, 1966) seriously jeopardizes the confidence we can place in the therapist's ratings of his client's improvements.

An ideal solution to the treatment effectiveness criterion problem would be to resort to direct behavioral observation of the client's behavior in real-life situations. Furthermore, to negate the experimenter bias effect, it would be necessary for the observers to be 'blind' or unaware of whether the individual client is undergoing assertive training or not. Additionally, there is the problem of training the observers to accurately evaluate and record the degree of assertion displayed. It is obvious that this solution is pragmatically unworkable outside of an in-patient hospital situation where the patients can be viewed on a daily basis, and even there the establishment of blind observation procedures present formidable difficulties.

What is required for the practicing assertive training coach is a reliable, valid psychometric instrument which can assist him in the selection of candidates for assertive training and give an objective measure of treatment effectiveness. The measure should correlate highly with the observed degree of asserive responding in real-life situations, show a satisfactory level of test-retest stability (in the absence of demonstrable changes in the individual) and be applicable to the majority of patients or clients participating in the treatment. Furthermore, it would be desirable for the instrument to have been normed on a Canadian population. The degree of assertion which is socially approved of or accepted is likely to show marked differences cross-culturally. An instrument produced, normed and validated in a country or culture different to that of Canada may have little applicability to the task of assessing the appropriateness of the degree of assertiveness of an individual in this locality.

Assertion Inventories and Questionnaires

In recent years there has been a dramatic increase in reports of questionnaires and inventories designed to measure the degree of assertiveness of individuals. However, the vast majority of these instruments have serious shortcomings. For example, the instruments produced by Alberti & Emmons (1974), Fensterheim (1972), Lazarus (1971), and Wolpe & Lazarus (1966) are all, as yet, unstandardized and serve primarily as qualitative aids to the assertive training coach, by presenting a number of typical social situations to the examinee, with his responses to be evaluated in a subjective manner, or to serve as a basis for an interview.

The vast majority of other reported inventories have been devel-

oped on and validated against college populations (eg., Bates & Zimmerman, 1971; Galassi, DeLo, Galassi & Bastien, 1974; Lawrence, 1970; McFall & Lillesand, 1971; and Rathus, 1973). The utilization of assertive behavior inventories developed on relatively homogeneous groups of college freshmen enrolled in introductory psychology classes to assess the need for assertive training in heterogeneous groups of psychiatric patients may be quite inappropriate. There are obviously great differences between these groups which could make a test developed for the college group inapplicable to both the population at large, and more specifically, to hospitalized groups. For example, the college group would tend to show a significantly lower mean age, would likely be overrepresentative of the upper-middle and upper socioeconomic strata, would represent a generally higher intellectual level grouping, and would probably be considerably more homogeneous in respect to social background, particularly in terms of racial and ethnic factors, with underrepresentation of minority groups. In contrast to this tendency for college students to represent primarily the upper social strata, Hollingshead & Redlich (1958) found an inverse relationship between social class and incidence rates of admission to psychiatric hospitals. Thus, an unselected group of psychiatric hospital patients is likely to be significantly lower in socioeconomic status than the college student population the previously mentioned inventories where standardized on, pointing out the inappropriateness of these tests for patient populations.

Two other scales which are presently available are the Adult Self-Expression Scale (Gay, Hollandsworth & Galassi, 1975) and the Assertion Inventory (Gambrill & Richey, 1975), both of which have been developed for noncollege adults. These scales certainly circum-

vent many of the previously mentioned difficulties in regards to representativeness of the standardization group for the population in question. However, these tests also present some serious deficiencies. Scores on the Adult Self-Expression Scale are significantly correlated to aggression, as measured by a subscale of the Adjective Check List (Gay, Hollandsworth & Galassi, 1975). This may represent a serious deficit, as one of the primary goals of assertive training is to teach clients to discriminate between assertion and aggression and encourage response tendencies in favor of the former (Lange & Jakubowski, 1976). A second short coming which is common to both is that they were normed on homogeneously white populations, drawn from community colleges in the United States. This restricts the confidence we can place in these scales for the patient populations in Canadian psychiatric hospitals, due to the overrepresentation of non-white minority groups in the hospital population, notably native Indians, Metis and Inuit. In short, it is difficult to defend the assumption that a homogeneous American standardization sample is fairly representative of a Canadian hospital population.

The Green-Fox Scale

One assertiveness inventory which obviates most of these objections is the Green-Fox Scale (Green, 1973). This 28-item questionnaire was developed and normed on a general adult population which was, as far as practicable, proportionately representative of the age sex, and socioeconomic status of the general metropolitan Edmonton area population. It is therefore reasonable to assume that this instrument's referencing group will be more representative of Canadian patient populations than other instruments devised in the United States. The test was also designed to be applicable to ind-

ividuals of rather limited educational background, and all items were pretested for comprehensibility on a class of adults at the eigth grade level, indicating the wording of all items was readable at this level. Information regarding the minimum educational level necessary for comprehension of items on the other previously mentioned instruments is not generally available.

The scale's test-retest reliability over a three week interval was estimated at .79. Split-half reliability was found to be .66. A measure of internal consistency using the Kuder-Richardson 20 formula yielded a result of .93. These reported findings indicate a satisfactory level of test reliability for use in a practical situation.

The validity of the Green-Fox Scale was assessed by way of hypothesis testing in a concurrent validity matrix. On this scale, clients rated as being low in assertive skills or passive by their counsellor scored significantly lower than a random sample of clients who were not so rated. Similarly, nursing orderly trainees who were rated as below average in assertiveness by their supervisors scored significantly lower on the scale than trainees who were rated as above average on assertiveness. The scale was also validated against a number of other concurrent criteria, including the Willoughby Inventory, the IPAT Anxiety Scale, the Adult Irrational Ideation Scale, and birth order. A fuller discussion of the rationale behind these criteria is available elsewhere (Green, 1973). With the exception of the hypothesized relationship between birth order and assertiveness, all of the hypothesized relations between the obtained scores on the Green-Fox Scale and the criteria variables were supported at or beyond the .05 confidence level. The lack of significant relationship between birth order and assertiveness is consistent with Fox

(1969), who indicated that projects "employing more objective measures of personality variables have failed to report any significant relationships with birth order " (p. 31).

There are, however, several inadequacies of the Green-Fox Scale which, at present, hamper its utility for a clinical situation. There are no reported norms available for the scale at the present time, against which the results of an individual can be compared. Although apparently valid and reliable, the obtained scores cannot be interpreted as indicative of actual level of assertiveness without norms to reference to. Secondly, the scale has not been validated against a clinical psychiatric population. The need for this form of validation is apparent in consideration of the number of psychiatric patients who manifest a lack of assertiveness and who are undergoing assertive training, either individually or in group sessions. It is this author's belief that there is a real need for some efficient means of assessing the needs of the individuals in psychiatric hospital settings for assertive training, and therefore a need to assess the applicability of the Green-Fox Scale to such a population. A third area to which this scale has not been applied is in the measurement of actual changes in assertiveness as a result of training in assertion. Validation of the scale has so far been restricted to differentiation of groups believed to differ in level of assertion. Its utility to detect changes in the individual's level of assertiveness over time has not, to date, been investigated.

Objectives of the Study

The specific objectives of this study will be to attempt to validate the Green-Fox Scale on a sample of a psychiatric patients

to determine its applicability to such a population and also to assess the scale's ability to reflect individual changes in assertiveness level, as a function of participation in group assertive training. Specifically, the study will adress itself to the following questions:

1) Does the Green-Fox Scale reliably discriminate between psychiatric patients selected as suitable candidates for assertive training (and therefore assumably low in assertion) from those patients who are not assessed as needing assertive training?
2) Does the Green-Fox Scale obtain scores which remain stable for psychiatric patients who are assumed to be unchanged in regards to assertiveness (i.e., those patients who do not receive assertive training)?
3) Does the Green-Fox Scale reflect changes in individuals' abilities to assert themselves (i.e., does it show increases in assertiveness after completion of assertive training)?

The development of standardized norms for this scale, while obviously an essential step in developing the scale for practical utilization, lies outside the scope of this study and remains an important area for further research.

CHAPTER III

METHOD AND PROCEDURE

Sample

The sample for this study consisted of 29 patients who were attending the psychiatric day program at the Edmonton General Hospital during the period of May to July of 1978. The sample consisted of 10 males and 19 females with an age range of 18 to 52 years, with an average age of 26.70 years. The patient sample, although unbalanced in regards to sex, was considered by the unit staff to be representative of the typical sex ratio seen in the program's patient population. All of the patients in the program at that time were diagnosed by the unit psychiatrist as suffering from psychoneurotic disorders, with reactive depression and anxiety neurosis being the most common diagnoses. None of the patients were diagnosed as being currently psychotic or as having any marked organic symptomatology. A total of 17 members of the sample were selected by the program staff as suitable for assertive training and received group training in assertion in addition to a variety of other group psychotherapy approaches (Gestalt Therapy, Transactional Analysis, Relaxation Therapy, Community Group which focused on individual problems) for a period of 5 weeks. These patients were, for the purposes of this study, considered to be the experimental or training group. The remaining 12 patients were judged not to require assertive training, participated only in the other therapy groups, and for this study, served as a control group.

Method

Participation by all subjects in this project was voluntary. Subjects were approached as soon after their arrival on the unit as practicable and their assistance with the research project was requested. It was emphasized to all subjects that the study was independent of the operation of the day program, that the purpose of the study was to examine the applicability of the questionnaire to hospital patients, and that the results of the questionnaires would remain confidential. In an attempt to avoid cuing the patients as to the exact nature of the behaviors being sampled by the questionnaire, it was described as a "social skills" inventory. The purpose of the study was described as being that of determining whether the scores on the questionnaire would show an increase in the social skills it sampled after attending the psychiatric day program for a period of over a month. Patients were also allowed to examine copies of the questionnaire before volunteering to participate in the study. Response to the request for volunteers was excellent, and after presenting the request to the patients in the Community Group, all patients present at that time volunteered to complete the questionnaire.

From the collection of completed questionnaires, those patients who had attended the day program for less than one week, and who had not yet been assessed for assertive training, were included in the research study sample. Further patients who entered the day program at later dates were approached on an individual basis and were asked to complete the questionnaire during their first week on the unit.

Prior to their starting assertive training, this investigator rated each patient on level of assertiveness displayed in other

therapy groups (Gestalt Therapy, Transactional Analysis, and during discussions after Relaxation Therapy), using a stanine rating scale (see Appendix C). A score of 1 represented a very low level of assertiveness and a score of 9 represented a very high level of observed assertion. These ratings were conducted independent of the assessments of the psychiatric nurses who were responsible for selecting patients for the assertive training group. These ratings were also made prior to receiving information regarding which patients would be joining the assertive training group, and were based on observed in-group behavior without additional information such as psychiatric diagnosis or social history (with the exception of those cases in which the patient had discussed aspects of their personal background in the group sessions). In addition, none of the Green-Fox Scale questionnaires were scored until the completion of the study, to avoid possible biasing of ratings on the basis of inventory scores.

Patients were contacted and asked to complete the Green-Fox Scale questionnaire a second time after periods of 5 to 6 weeks in the day program (for the no assertive training control group) or 5 weeks in assertive training (for the experimental group). It was often necessary for members of the experimental group to wait one or two weeks for a new assertive training group to be formed and started. At the end of this period in assertive training, a second rating was done on the patients in the experimental group, with the degree of improvement in assertiveness seen in other group therapy sessions being rated on a stanine scale (see Appendix D). Ratings of general level of assertiveness were not made at this time because it was felt that the rater's knowledge of who had attended assertive

training might have introduced a significant bias towards rating those who had received training as being more assertive, rendering such ratings invalid.

Data Analysis

The resulting scores for both administrations of the Green-Fox Scale for the two groups were tested for significance of differences between means. Directional, one-tailed 't' tests were used for comparing the pre- and post-training scores for the experimental group, as well as for comparing the means of the experimental and control groups prior to training. The significance of the difference between the means for the first and second testings for the control group was assessed using a nondirectional, two-tailed 't' test. Pearson Product Moment correlations between the Green-Fox Scale scores and the assertiveness rating scores were computed and their significance assessed using one-tailed 't' tests.

CHAPTER IV

FINDINGS AND CONCLUSIONS

Introduction

In this attempt to validate the Green-Fox Scale for practical applicability to a psychiatric patient population, two types of utility were investigated. The first of these consisted of demonstrating that the Green-Fox Scale is capable of reflecting the patients' behavioral levels of assertiveness. This ability was tested in two ways. The first test of this ability was to determine if the Green-Fox Scale scores could successfully differentiate between a group of patients selected by the training coaches as requiring assertive training and a group of patients judged by the day program staff as not requiring any formal training in assertion. It was hypothesized that those patients selected for assertive training would manifest lower levels of assertiveness, and that their scores on the Green-Fox Scale would likewise be lower on the average from the scores of patients not selected for assertive training.

A second attempt to investigate the Green-Fox Scale's ability to reflect behavioral levels of assertion was made by correlating the scores of the total patient sample on the first administration of the Scale with ratings of assertive behavior based on observations of their behavior in group therapy sessions. It was hypothesized that, to the extent that the Green-Fox Scale was accurately reflecting the individual patients' actual levels of assertiveness in social situations, the correlation between the Green-Fox Scale and assertiveness ratings based on observations of their behavior should be

significantly positive.

The second objective of the validational study was to determine if the Green-Fox Scale would reflect changes in assertiveness in individuals over time. That is, could this instrument be used to monitor patients' progress in assertive training, as contrasted with its use as an instrument to identify individuals or groups requiring assertive training. This objective was also assessed using two approaches. The first approach was to compare the mean Green-Fox Scale scores on the first and second administrations for both patient groups. It was assumed that the assertive training program had a significant effect on the patients' levels of assertiveness. Based on this assumption, it was hypothesized that those patients who recieved assertive training would show an increase in their average score on the Green-Fox Scale, while those patients not receiving assertive training would show little or no increase in their mean Green-Fox Scale score.

This second objective was also explored by correlating the difference between the first and second Green-Fox Scale scores for the individuals in the assertive training group with their ratings of improvement in assertive responding in group therapy sessions. The hypothesis being tested was that those individuals with large, positive changes in their Green-Fox Scale scores following assertive training would also show significant improvements in their ability to behave in an assertive manner in group therapy sessions. Consequently, it was hypothesized that there should be a positive correlation between the difference scores on the Green-Fox Scale and the ratings of improvement in assertiveness.

Summary of Hypotheses Tested

1. Patients selected for inclusion into the assertive training group would score lower on the Green-Fox Scale than patients not so selected.
2. Scores on the Green-Fox Scale would be positively correlated with ratings of assertiveness based on observed group therapy behavior.
3. Patients completing assertive training will show, on the average, higher scores on the Green-Fox Scale, in comparison to pre-training scores.
4. Patients not receiving assertive training would not show any significant changes in Green-Fox Scale scores over a 5 to 6 week period.
5. Difference scores between pre-training and post-training Green-Fox Scale scores for the assertive training group would show a positive correlation with ratings of improvement in ability to respond assertively in group therapy.

Results

Calculation of the means and standard deviations of Green-Fox Scale scores were undertaken for the two groups and are presented in Table 1. The Pearson Product-Moment correlations between the pre-test Green-Fox Scale scores and the assertiveness rating scores for the total sample as well as the correlation of the difference scores with ratings of improvement in assertiveness are presented in Table 2.

TABLE 1

TEST AND RETEST MEANS AND STANDARD DEVIATIONS OF GREEN-FOX SCALE SCORES UNDER TWO TREATMENT CONDITIONS

GROUP	TEST 1		TEST 2	
	MEAN	S.D.	MEAN	S.D.
Assertive Training	51.12	8.92	67.41	8.31
No Assertive Training	69.25	8.69	70.25	10.06

TABLE 2

PEARSON PRODUCT-MOMENT CORRELATIONS BETWEEN GREEN-FOX SCALE SCORES AND ASSERTIVENESS RATINGS AND BETWEEN GREEN-FOX SCALE DIFFERENCE SCORES AND RATINGS OF IMPROVEMENT IN ASSERTIVENESS

CORRELATED VARIABLES	N	r	P (One-Tailed)
Green-Fox Scale, Test 1/ Assertiveness Rating	29	.63	$<.0005$
Green-Fox Scale Difference Scores (Test 2 - Test 1)/ Assertion Improvement Rating	17	.51	$.05>P>.01$

Hypotheses one and three were tested using directional, one-tailed 't' tests, while hypothesis four was tested using a non-

directional, two-tailed 't' test. The results of these tests are presented in Tables 3, 4, and 5.

TABLE 3

COMPARISON OF MEAN SCORES OF GREEN-FOX SCALE OF PATIENTS SELECTED FOR ASSERTIVE TRAINING TO PATIENTS NOT SELECTED

GROUP	N	Mean	S.D.	D.F.	T	P (One-Tailed)
Assertive Training	17	51.12	8.92	25	-5.45	<.0005
No Assertive Training	12	69.25	8.69			

TABLE 4

COMPARISON OF POST-TRAINING GREEN-FOX SCALE SCORES TO PRE-TRAINING SCORES FOR THE ASSERTIVE TRAINING GROUP

TEST	N	MEAN	S.D.	D.F.	T	P (One-Tailed)
Pre-Training	17	51.12	8.92	15	-9.91	<.0005
Post-Training		67.41	8.31			

TABLE 5

COMPARISON OF FIRST ADMININSTRATION OF GREEN-FOX SCALE SCORES TO SECOND ADMINISTRATION SCORES AFTER 5 - 6 WEEK INTERVAL FOR NO-ASSERTIVE TRAINING CONTROL GROUP

TEST ADMINISTRATION	N	MEAN	S.D.	D.F.	T	P (Two-Tailed)
First	12	69.25	8.69	10	-0.91	>.05
Second		70.25	10.06			

Conclusions

As can be seen from the previous tables, all five stated hypotheses received empirical support from the data collected in this study. In summary, patients selected for assertive training showed, on the average, significantly lower Green-Fox Scale scores than patients not so selected ($p < .0005$). These same patients selected for assertive training showed significant increases in Green-Fox Scale scores after completing the five week assertive training program ($p < .0005$). The control group patients did not show any significant changes in mean Green-Fox Scale scores over a similar time span ($p > .05$). The results of the correlational approach in the study were likewise supportive of the hypotheses. Scores on the Green-Fox Scale were positively correlated to ratings of assertiveness based on behavior observed in group therapy sessions ($r = .63$, $p < .0005$), and increases in observed assertiveness ratings was positively correlated with increases in Green-Fox Scale scores ($r = .51$, $p < .05$).

CHAPTER V

DISCUSSION AND IMPLICATIONS

Discussion

The results of this study lend considerable support to the original validity studies for the Green-Fox Scale reported by Green (1973). The results indicate that the Green-Fox Scale is validly applicable to psychoneurotic patients, such as those participating in the Edmonton General Hospital psychiatric day program. In this study, the Scale was demonstrated to be able to differentiate between patients assessed to be inadequate in assertiveness and others judged to be adequately assertive, and it was also demonstrated as able to reflect changes in assertiveness level over time. It appears that the Scale is adequate for use as both a screening instrument to assist in the selection of patients for assertive training programs, and as an instrument for monitoring their progress within such programs.

In regards to the first of these two uses, the results from this patient sample suggests that a score of 60 or better on the Green-Fox Scale might be tentatively considered as indicative of normal or adequate levels of assertiveness. Using a score of 60 as the cutting score for identifying patients in need of assertive training would have resulted, in this sample, in correctly identifying 88.24% of the patients actually selected for assertive training, and would have resulted in correctly identifying 91.67% of the patients judged to be of adequate assertiveness. Only 2 out of

17 of the assertive training group patients received scores of 60 or better, representing a false negative rate of only 11.76%. The false positive rate, those patients judged to be adequately assertive who received scores of less than 60 on the Green-Fox Scale, would be only 8.33%. However, the use of such a cutting score criterion for selecting patients for assertive training should be applied with caution, and might best be viewed as only one indicator of possible assertion deficits. As a screening device it may be useful in indicating which individuals require more detailed investigations, but it should probably not be used as the only criterion for selection.

Limitations of the Study

While the study was successful in its main objective of assessing the applicability of the Green-Fox Scale to a psychiatric patient population, certain limitations of the study necessitated by practical issues restrict the range of generalizations that can be drawn from it.

A primary consideration is that of limited sample size, which was constrained by the number of patients attending the assertive training group at a time (approximately 6 to 9 patients per group) and the length of time each group ran before accepting new patients (approximately 5 weeks). While the obtained results indicate very significant differences in Green-Fox Scale scores for the two patient samples investigated in this study, larger sample sizes would increase the confidence we could give to the expectation of similar group differences being found in other samples.

A second major limitation of the study is related to the composition of the patient sample. As previously noted, the patient sample consisted exclusively of psychoneurotic patients whose disorders were considered to be of mild enough severity to justify their treatment on an out-patient rather than residential basis. There were no currently psychotic disorders or indicated organic brain syndromes among the diagnoses assigned to the patients included in this sample. This restriction of the patient sample to mild psychoneurotics leaves the question of the validity of the Green-Fox Scale for more seriously disturbed, psychotic or brain damaged psychiatric patients unanswered.

A further difficulty of the study involves the reliance on the day program staffs' decisions regarding patient inclusion into assertive training as a validation criterion. Since the assertive training group represented an on-going therapeutic program for which patients were recruited, there remains the possibility that to some extent the acceptance into the group may have reflected availability of positions within the group as well as the individual patient's actual need for the assertive training. The effect of this contaminating factor would likely be most severe in those individuals in the lower end of the normal assertiveness range, where the need for assertive training may be debatable. The decision to include such an individual in the training group may, in part, reflect the training coach's desire to obtain a sufficient number of patients to justify the existence of the group and/or achieve an optimally effective group size. This factor may partially explain the discrepency between the mean of Green-Fox Scale score

for the control group in this study (69.25) and the mean score for the random sample of counselling clients who were not catagorized as passive reported by Green (1973) of 62.88. To the extent that patients who were borderline in assertiveness experienced a bias towards inclusion into the assertive training group, one would expect an artifactual elevation in the mean Green-Fox Scale score. This limitation also reduces the confidence we can place on the previously discussed cutting score for selecting patients for assertive training. However, since the effect of a bias such as described here would be to raise the cutting score to include more individuals in the training group, and since, to the best of this author's knowledge, there have been no published reports of adequately administered assertive training adversely affecting the adjustment of individuals, it appears more conservative to accept more individuals into assertive training whose need for it is marginal, than to reject their inclusion and deny them the opportunity of possibly benefiting from it.

Implications for Further Research

While the results of this study strongly support the use of the Green-Fox Scale for assessing the level of assertiveness in psychiatric patients such as included in this sample, there remains a number of important areas requiring further investigation and development. As discussed above, the patient sample in this study was rather limited in regards to psychiatric diagnosis and severity of disturbance. One of the most pressing needs for further study is to assess the Scale's ability to validly reflect assertiveness

in such patient groupings as psychotics, organic brain syndromes, and drug dependencies or addictions. Until such time as scientific validation of the Scale for such diagnostic groups is obtained, generalizing the results of the present study to them will be unsubstantiated.

A second major implication of this study is that the Green-Fox Scale may be an adequate instrument for screening large numbers of potential clients to guide selection for assertive training programs. Prior to utilizing the scale in such a manner, however, there is a need for more adequate standardization and norming of the scale. For the reasons outlined earlier, the use of the cutting score obtained in this study may result in a bias towards overinclusion into the training group. Also, since the use of this cutting score has not yet been tested by way of cross-validation, it should not be considered as an adequate substitute for properly standardized norms for the Green-Fox Scale. A worthwhile addition to our knowledge about this inventory would be to have a set of norms based on an adequately sized sample, and preferably with seperate norms for differing age groups, sex, and cultural/ethnic groups (e.g., Canadian Indian and Inuit cultures tend to reinforce and support patterns of interpersonal behavior which, from a White, middle-class viewpoint would likely be labled passive or nonassertive).

A final major implication of this study is that since the Green-Fox Scale appears to be a reliable and valid measure of assertiveness level in a variety of populations; counselling clients and community college students in the original Green (1973) study and psychiatric day program patients in the present study,

it would seem desirable to have more studies on assertive training utilize it as an objective, unbiased measure of assertion. This is an important need, as there still remain considerable numbers of studies being conducted every year which utilize only subjective ratings of client improvement. If assertive training is to avoid the pitfall of becoming a "psychological fad" there is a pressing need for careful, scientific research to determine what situatations it can be usefully applied. It is this author's firm belief that the use of an instrument such as the Green-Fox Scale can assist in this process of scientific investigation and should be advocated for use instead of, or in conjunction with, the less objective, though more common, forms of assessing assertiveness.

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APPENDIX A

THE GREEN FOX SCALE

Directions: Following are questions about how you would act in certain situations. Look at each question and place a check mark (✓) in the space of the item on the answer sheet that most closely describes how you would behave. Your answer must show how you would actually behave and not how you think you would like to react in such a circumstance. There are no right or wrong answers to this scale.

Example: While at work/school your boss/teacher stops at your place to watch you work. Do you:

A. stop working and get very upset because it bothers you to have someone watch you working?
B. chat with your boss/teacher while you do your work?
C. do your work the same as always?

Alright, now decide which one of the three ideas best describes how you would really act. Indicate your response by a check mark in the appropriate space. Remember do not check what you think you would like to do, mark what you would most likely do in each case.

1. At your job, you are overdue for a raise. Would you:

   A. ask your boss for a raise?
   B. say nothing, feeling upset that your boss does not come forward offering you a raise?
   C. give subtle hints about wanting a raise?

2. Upon receiving disrespectful service from the salesperson at a department store, do you:

   A. ask to speak to his/her manager in order to complain?
   B. ignore the salesperson and make your purchase anyway?
   C. quickly leave that department?

3. While at a party, you notice how attractively the hostess has prepared the food. Do you:

   A. not show your appreciation because you would feel embarrassed?
   B. tell her how nice the food looks?
   C. eat a lot of food, in this way showing your appreciation?

4. This time you have really made an effort on a project and feel very pleased with the result. Your boss/teacher comes and criticizes one little part of your work. Would you:

   A. object, directing his/her attention to the rest of the work?
   B. get upset by the criticism, but say nothing to your boss/teacher?
   C. be indifferent to his/her comments?

5. You are in a theatre, watching a show. Two people in front of you are talking loud enough to distract you from following the program. Do you:

   A. start talking yourself, hoping they will take the hint?
   B. ask them to stop talking?
   C. say nothing, and put up with it?

6. Your friend embarrassed you in public. Would you:

   A. try to embarrass him/her?
   B. try not to let him/her know that you are upset?
   C. let him/her know of your embarrassment?

7. You have been wrongly charged with a traffic violation. Would you:

   A. pay the fine but feel very unhappy and bitter about your bad luck?
   B. hire a lawyer and fight the injustice?
   C. pay the fine because it will be less trouble in the long run?

8. While standing in a line-up to get into a theatre, a person pushes in ahead of you. Do you:

   A. get upset about it, but do nothing?
   B. grumble about it to a friend, but nothing else?
   C. tell the person to step to the back of the line?

9. You have agreed to meet your friend at a certain place. He/she is a half hour late. Do you:

   A. wait for an explanation and accept any reasonable excuse?
   B. say nothing but are upset because you feel so taken for granted?
   C. express your annoyance?

10. A relative asks you for some help but you are busy with another project. Would you:

   A. let the relative know that you are busy but help him/her anyway?
   B. let the relative know that you are busy?
   C. drop everything and help your relative because you do not want him/her to get mad?

11. You are at an art gallery opening and an artist friend indicates enthusiasm about a painting that you do not really like. Would you:

   A. disagree with him/her and tell why?
   B. say nothing?
   C. agree with the artist so that he/she will not force you to defend your opinion?

12. You are trying to further your education by going to school. Your teacher gives you a written assignment. Do you:

   A. write the way you want?
   B. try to get the work done?
   C. try to write for what the teacher wants, but get upset about it?

13. Your friend wishes to borrow one of your books after you have decided not to loan them out anymore. Would you:

   A. let him/her take the book but indicate that you have no wish to part with it?
   B. say nothing, but get very upset inside?
   C. refuse to part with the book?

14. Your evening meal is interrupted by a door-to-door salesman who "just wants a moment of your time to show his new product". Do you:

   A. have him/her come back in an hour even though you are not really interested in the product?
   B. tell him/her that you are not interested and return to your meal?
   C. listen politely, getting very upset at the thought of a cold meal?

15. A person with whom you work closely has an annoying personal habit. Would you:

    A. say nothing because you feel that it is none of your business?
    B. tell him/her what bothers you?
    C. suffer with it even though the habit really bothers you?

16. Your friend borrows an electric appliance from you. After he/she returns it, you try to use it, but it will not start. Would you:

    A. do nothing, but get upset at how your friends mistreat you?
    B. try to fix the appliance yourself?
    C. let your friend know that it will not work and ask him/her to repair it.

17. With members of the opposite sex, would you usually:

    A. enjoy talking about yourself, your interests and your work?
    B. feel nervous talking about yourself and avoid every chance to do so?
    C. feel indifferent in talking about yourself, your interests, and your work?

18. You feel that your help is taken for granted by someone you like very much. Would you:

    A. continue to help but grumble loud enough to be heard by that person?
    B. make your feelings known?
    C. say nothing and do what is expected of you, feeling upset that you are taken for granted?

19. You walk into a room full of strangers. Do you:

    A. look for someone you know?
    B. get upset because you are the centre of attention?
    C. make an effort to meet some of these new people?

20. You have given your co-worker/classmate twenty-five cents in order that he/she might buy you a beverage for ten cents. Upon returning he/she brings you your beverage but does not give you the change. Do you:

    A. ask for your change?
    B. say nothing but feel badly about people's dishonesty?
    C. drink your beverage, and continue with your work?

21. Someone whom you like has hurt your feelings. Do you:

    A. try to hurt them back?
    B. remain silent in order not to show that you have been hurt?
    C. let that person know how they affected you?

22. When you are feeling ill, do you:

A. do nothing but worry a lot about your health?
B. take a few aspirins and go to bed?
C. usually see your doctor?

23. When you take an examination do you usually:

A. feel a little tense but very alert?
B. get upset and forget what you had studied?
C. feel indifferent and do what you know and leave out what you do not know?

24. You are invited for dinner to a friend's house. The hostess has unknowingly prepared a meal in which the main course is food that you do not like to eat. Do you:

A. pretend that it is delicious?
B. tell the hostess of your dislike?
C. not eat that food?

25. The week before you had agreed to go out with a friend to a movie. Now however, you have a headache and would really prefer not to go out. Do you:

A. tell your friend that you have a headache and will not go out?
B. tell your friend you have a headache but go out anyway?
C. go out and pretend that everything is all right?

26. Your friend tells you how much he liked the favor you did for him. Would you:

A. thank him and let him know you are happy that he liked it?
B. get embarrassed and not say anything?
C. nod your head to show him you heard?

27. You have an idea of how you can do your job more easily. Do you:

A. do your work the same as always, feeling bad that no one will ever like your ideas?
B. go and do it your way?
C. ask your teacher/supervisor for permission to try the new way?

28. While eating dinner with company, you make a bad mistake. Would you:

A. apologize over and over again, getting more and more upset each time?
B. apologize and continue with the meal?
C. continue with the meal?

APPENDIX B

SCORING THE GREEN FOX SCALE

Scoring of the Green Fox Scale follows the assignment of weights as listed below. The most assertive responses are weighted as 3, neutral responses are weighted as 2, and passive non-assertive responses are weighted as 1. The scores for each item are then summed and expressed as a total score.

KEY

1.	A 3	B 1	C 2	15.	A 2	B 3	C 1
2.	A 3	B 2	C 1	16.	A 1	B 2	C 3
3.	A 1	B 3	C 2	17.	A 3	B 1	C 2
4.	A 3	B 1	C 2	18.	A 2	B 3	C 1
5.	A 2	B 3	C 1	19.	A 2	B 1	C 3
6.	A 2	B 1	C 3	20.	A 3	B 1	C 2
7.	A 1	B 3	C 2	21.	A 2	B 1	C 3
8.	A 1	B 2	C 3	22.	A 1	B 2	C 3
9.	A 2	B 1	C 3	23.	A 3	B 1	C 2
10.	A 2	B 3	C 1	24.	A 1	B 3	C 2
11.	A 3	B 2	C 1	25.	A 3	B 2	C 1
12.	A 3	B 2	C 1	26.	A 3	B 1	C 2
13.	A 2	B 1	C 3	27.	A 1	B 3	C 2
14.	A 2	B 3	C 1	28.	A 1	B 2	C 3

Total possible score for the Green Fox Scale is 84. At present, no norms are available for the Green Fox Scale.

APPENDIX C

PATIENT ASSERTIVENESS RATING SCALE

High Assertion

Patient is capable of speaking out in group therapy sessions, saying what he/she thinks or feels. The patient is generally able to express a complete range of feelings and can take initiative, ask questions and show some leadership in the group sessions. He/she can disagree with the expressed opinions of other patients or that of the group therapist.

Low Assertion

Patient finds it difficult to speak out in group and say what he/she thinks. The patient generally responds only to direct questions and does not take initiative, ask questions or show leadership in the group sessions. He/she appears to follow the lead of other patients or is often looking to the group therapist for direction. He/she avoids disagreements with others and may change his/her stated position if others disagree with it.

Patient Name	Low Assertion								High Assertion
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9

APPENDIX D

ASSERTIVENESS IMPROVEMENT RATING SCALE

High Improvement

The patient has shown a considerable increase in his ability to respond assertively in group sessions. He/she talks more readily, participates in group discussions more often, and appears freer to express his/her opinion and feelings to the group, even if they run counter to the opinions of others. The patient appears to be less dependent on the views and opinions of others, including the therapist, and is better able to disagree with others when appropriate.

Low Improvement

The patient has shown little or no change in his/her ability to be assertive in the group sessions. He/she remains quiet in the group often, and continues to take his/her lead from others, and may alter or reverse his/her stated opinion on an issue if others disagree with it. In general the patient appears to be as passive now as when he/she first started therapy.

Patient Name	Low Improvement								High Improvement
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9
.....	1	2	3	4	5	6	7	8	9